



NAIP 2014



Agenda

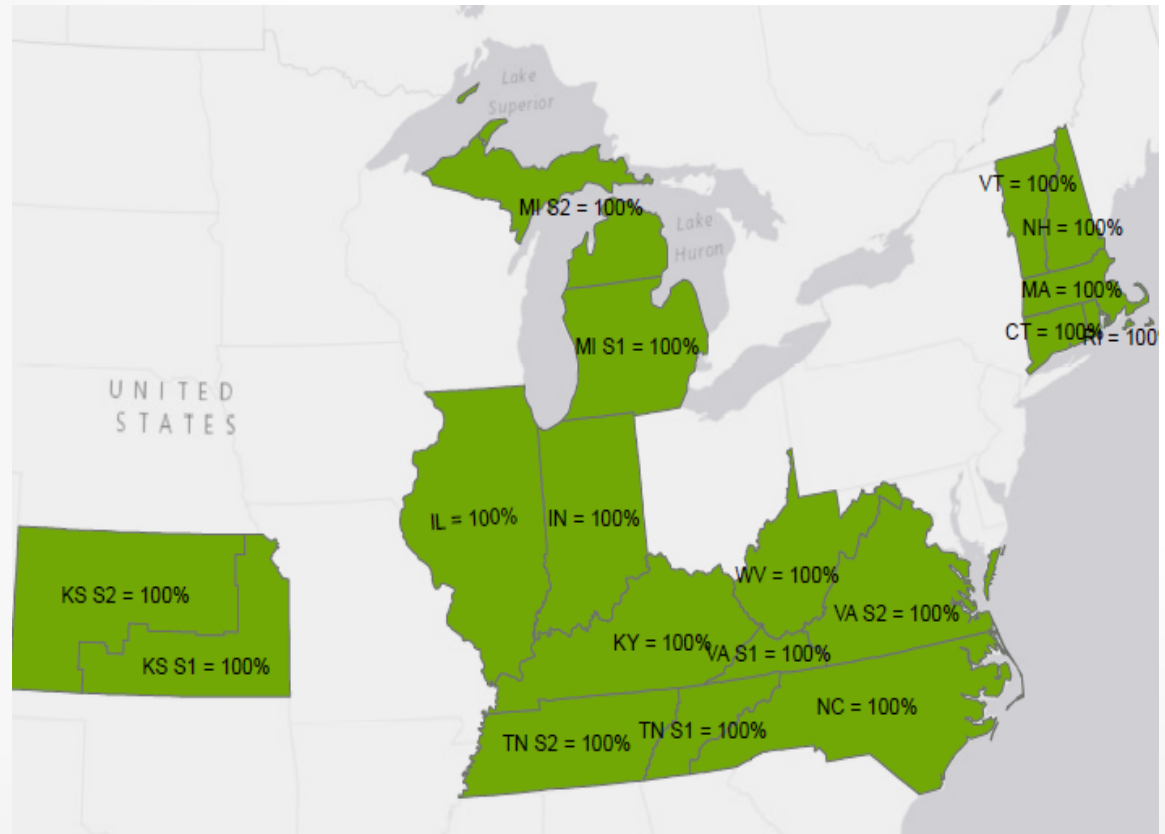
**2014: Task Award &
Schedules
Summary
Ground Control
State Overviews
EAWS
Lessons Learned**



2014: Task Award & Schedules

<u>STATE</u>	<u>QUANTITY</u>
Connecticut	413
Illinois	4131
Indiana	2689
Kansas	5902
Kentucky	2930
Massachusetts	744
Michigan	4846
New Hampshire	771
North Carolina	3582
Rhode Island	116
Tennessee	3000
Vermont	812
Virginia	3031
West Virginia	1831

34,798 DOQQs



2014 Summary

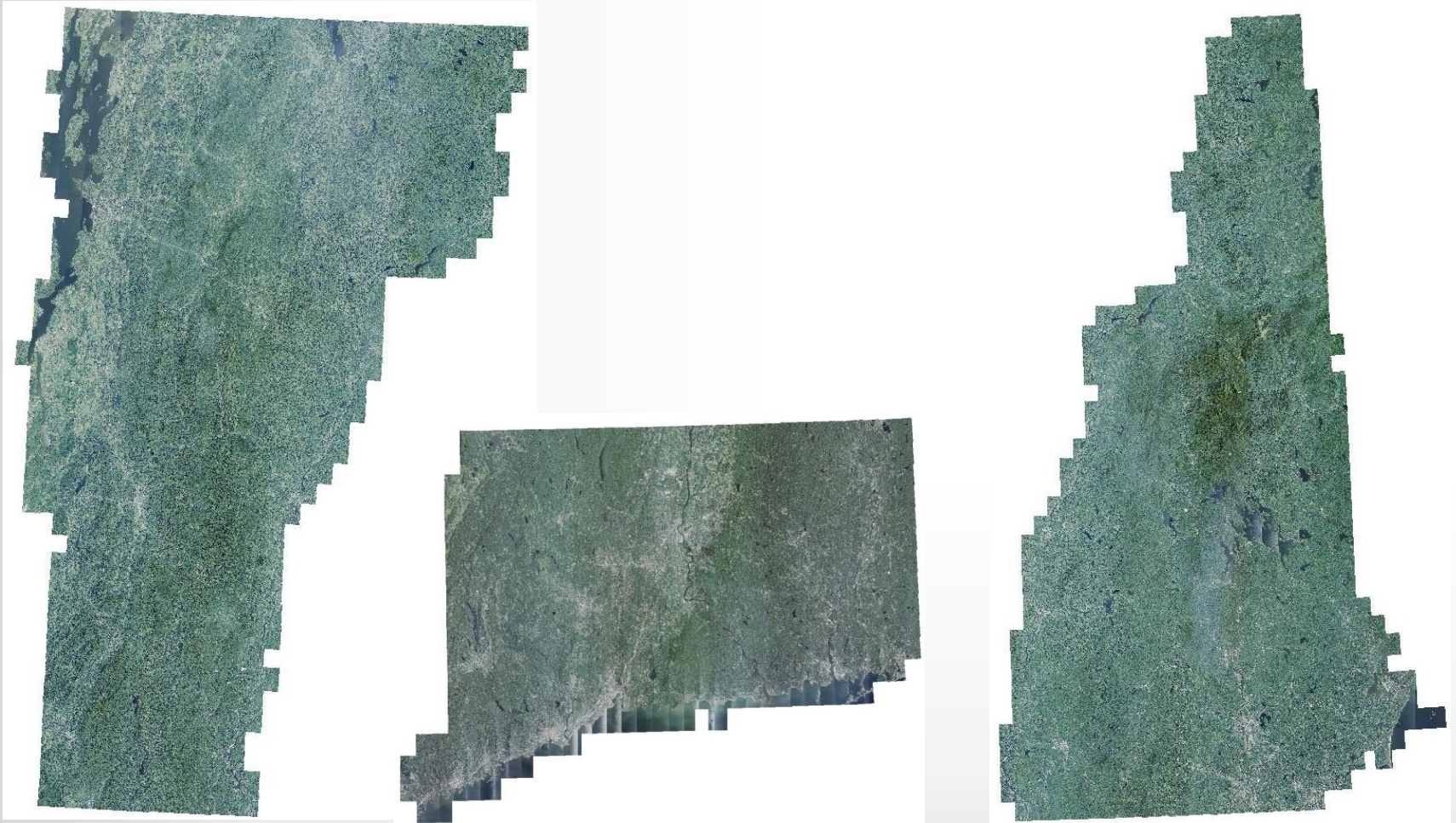
- Migrated from PremierGeo to Quantum Spatial in Jan, 2015
- Moved production from Arvada, CO to Lexington, KY
- Partners included Keystone Aerial, Kucera, Woolpert and ASI (Iowa)
- ADS51 & ADS81 sensor technology for 12 states. Ultracam Eagle sensors for 2 states (IL and KS)
- Rebuilt and scaled EAWS. Hosted in Lexington and maintained via Atlanta, GA
- Acquired 2 ADS100 sensors in Fall (not used in 2014 NAIP)

State	First Mission	Last Mission	Final Delivery
IL	13-Jun	18-Sep	27-Oct
IN	18-Jun	28-Oct	26-Nov
KS	15-Jun	4-Aug	30-Sep
KY	15-Jun	26-Oct	26-Nov
MI	28-Jun	21-Oct	5-Nov
NC	17-May	19-Oct	22-Nov
NENG	10-Jul	8-Sep	3-Oct
TN	26-Apr	23-Oct	6-Nov
VA	4-May	26-Oct	24-Nov
WV	7-Aug	2-Nov	26-Nov

State	Number of Control	RMSE x (m)	RMSE y (m)	RMSE r (m)	Accuracy r @ 95% (m)
CT	14	0.96	1.03	1.41	2.43
IL	46	1.25	1.09	1.66	2.88
IN	29	0.62	0.55	0.83	1.44
KS	40	1.03	0.62	1.05	1.82
KY	39	0.82	0.45	0.94	1.63
MA	11	0.68	0.44	0.80	1.38
MI	35	0.77	0.48	0.91	1.57
NC	40	1.03	0.63	1.21	2.09
NH	9	0.77	0.69	1.03	1.78
RI	6	0.78	0.62	1.00	1.72
TN	53	1.03	0.66	1.22	2.12
VA	24	1.38	0.40	1.44	2.49
VT	11	0.75	0.72	1.04	1.80
WV	51	0.93	0.69	1.16	2.01



2014: State Overviews



VT, CT, NH

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2014: State Overviews



KS, IL

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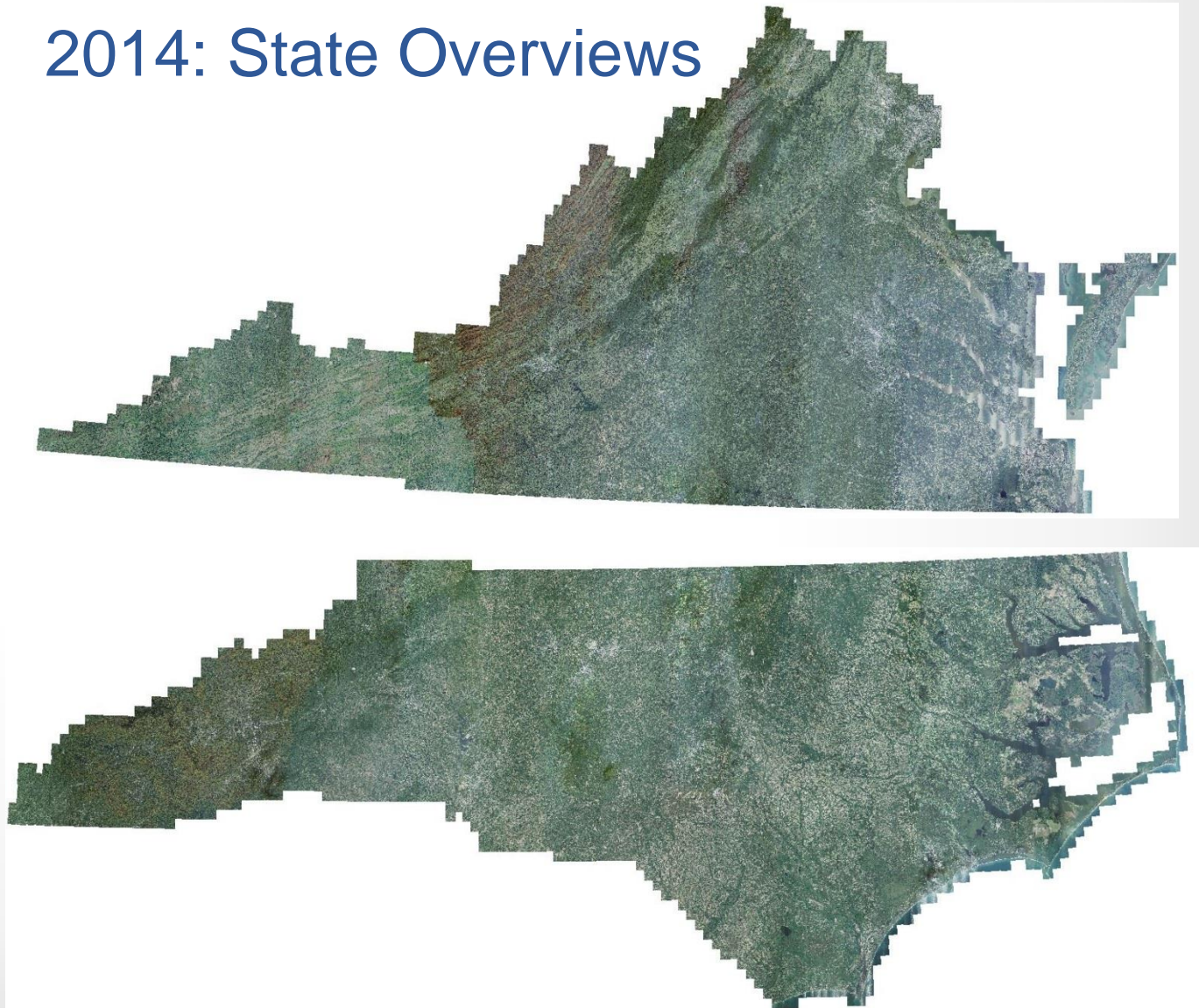
2014: State Overviews



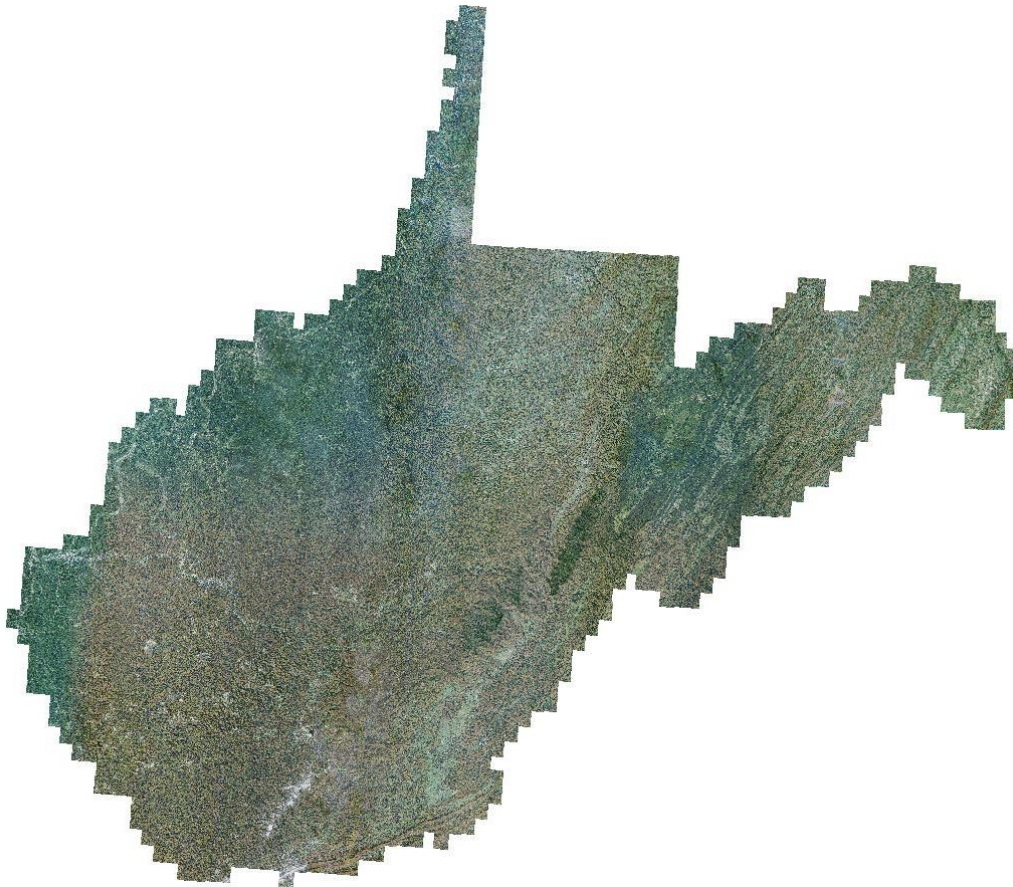
RI, MA, TN

Quantum Spatial, Inc.

2014: State Overviews



2014: State Overviews



WV, IN

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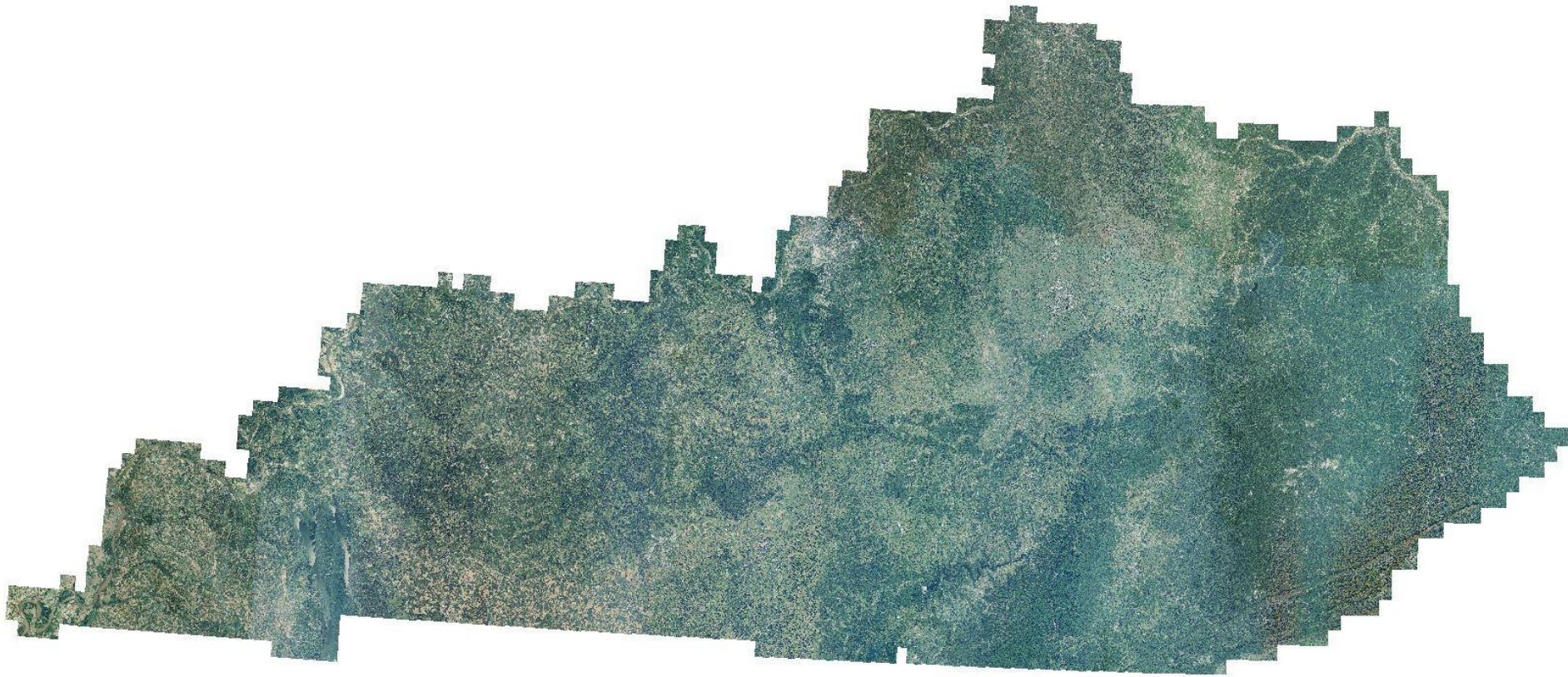
2014: State Overviews



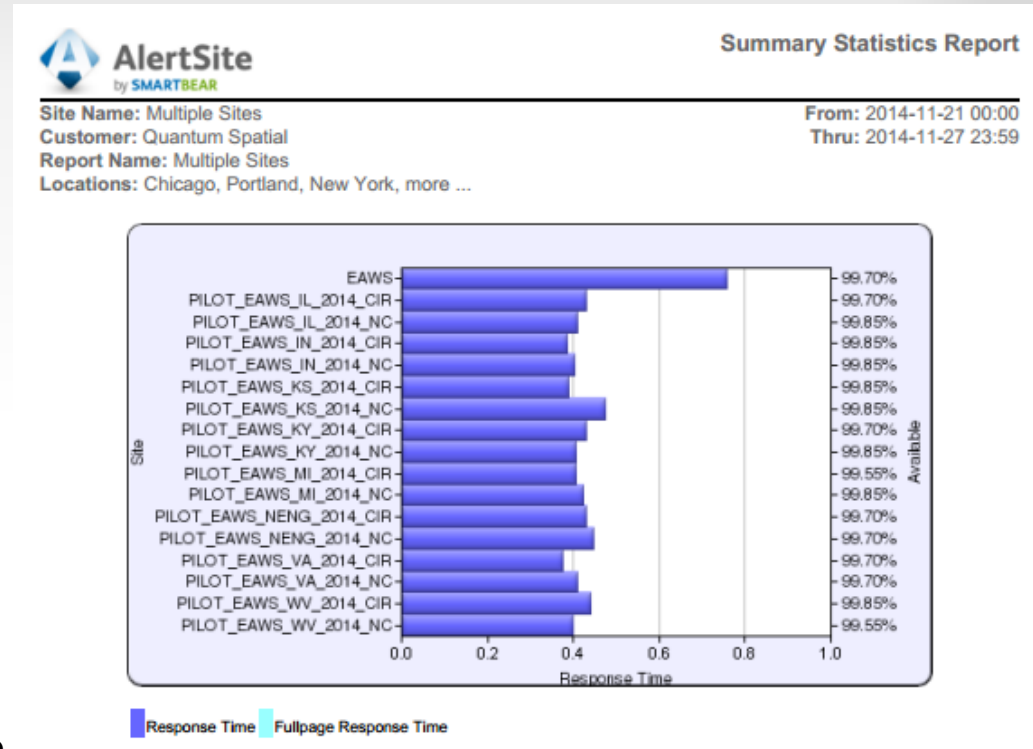
MI

Quantum Spatial, Inc.

2014: State Overviews



- Direct Georeferencing achieved with GPS/IMU, Coarse AT, and USGS NED
- Basic color correction applied
- Imagery formatted as 8-bit, JPG compressed TIFF for service
- Services published with ArcGIS Server and Image Server extension
- Clustered hardware with dedicated, redundant power and internet connectivity
- Average uptime over 99.8% (independently verified)
- Improve automated radiometry to achieve more consistent appearance from mission to mission
- Further develop monitoring capabilities
- Review publishing workflow to introduce production imagery into service when available



2015 General Notes

- Added 2 ADS100 sensors to capacity in fall 2014 (did not deploy on 2014 NAIP task awards).
- Stability from 2014 to 2015 in regards to Production staff, location, and ownership.
- 3rd year of EAWS - maturing capability

Service	Number of Service Hits
IL CIR	188
IL NC	4022
IN CIR	76
IN NC	2045
KS CIR	42
KS NC	2048
KY CIR	48
KY NC	1050
MI CIR	112
MI NC	3254
NENG CIR	152
NENG NC	2376
VA CIR	2501
VA NC	6937
WV CIR	29
WV NC	108

NAIP Prime Contractors: M&A Activity

Aerial Services, Inc. Founded 1968. Sold in 1974, 1988, and 2000. Maintain ASI name.

Aero-Metric, Inc – Acquired by Arlington Capital in 2013 and moved into Quantum Spatial

Horizons, Inc. -- Acquired by EarthData in 2004. Fugro acquired EarthData in 2007.

Landair Mapping, Inc.– Acquired by CM Equity in 2006 and moved into 3001, Inc.

North West Geomatics, Ltd – Acquired by Hexagon in 2014

Photo Science, Inc. – Acquired by Arlington Capital in 2013 and moved into Quantum Spatial

Sanborn Map Co, Inc. Acquired by EDR in 1996. EDR acquired by DMGT (Daily Mail & General Trust) in 1999. Sold to investor group in 2011.

Surdex Corporation. Founded 1954.

Triathlon, Ltd. Acquired by MacDonald, Dettwiler and Associates in 1997 (MDA)

Vargis, LLC. Acquired by Infotech Enterprises in 2004.

3001, Inc. Acquired by CM Equity in 2005. Sold to Northrop Grumman in 2009.

Northrop Grumman Corporation. Acquired 3001, Inc in 2009. Retired 3001 name in 2011 & sold aircraft.

Premier Geospatial, Inc. – Owned by XeDAR in 2011. Sold to IHS Global in 2012. Sold to Arlington Capital in 2014.

Quantum Spatial, Inc. Owned by Arlington Capital Partners.